CLAIMS

1. A process for synthesizing a crystalline molecular sieve, the process comprising the steps of:

   a) forming a reaction mixture comprising a source of alumina, a source of phosphate, at least one nitrogen-containing organic templating agent, and optionally a source of silica;

   b) inducing crystallization of the crystalline molecular sieve from the reaction mixture to form a slurry, the slurry comprising the crystalline molecular sieve; and

   c) recovering the crystalline molecular sieve from the slurry, wherein during any period of time after substantial completion of the crystallization in step (b), and prior to the recovery step (c), the slurry is held under substantially static conditions.

2. The process according to claim 1 wherein the slurry of the crystalline molecular sieve is stored after substantial completion of the crystallization in step (b), and prior to the recovery step (c).

3. The process according to claim 1 wherein the slurry is held at a temperature of 100 °C or less.

4. The process according to claim 1 wherein the slurry is held at a temperature of 45 °C or less.

5. The process according to claim 1 wherein the slurry is held at or below room or ambient temperature.

6. The process according to claim 1 wherein the crystalline molecular sieve is one or more silicoaluminophosphates (SAPO), and/or one or more aluminophosphate (ALPO), and mixtures thereof.

7. The process according claim 1 wherein at least some of the at least one of the nitrogen-containing organic templating agent is removed during the crystallization step (b).

8. The process according to claim 7 wherein the nitrogen-containing organic templating agent is removed prior to holding the slurry under substantially static conditions.

9. The process according to claim 7 wherein at least some of the nitrogen-containing organic templating agent is removed during the substantially static period.

10. The process according to claim 1, wherein the reaction mixture having a pH that is reduced after the reaction mixture is placed under crystallization conditions in step (b).

11. The process according to claim 1, wherein the slurry having a pH that is reduced.

12. The process according to claim 1, wherein the slurry has a pH that is reduced after the slurry has been placed under substantially static conditions.

13. A process according to claim 1, wherein the slurry having a pH that is reduced by removing the nitrogen-containing organic templating agent.

14. The process according to claim 1, wherein the crystalline molecular sieve is selected from the group consisting of: SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, ALPO-5, ALPO-11, ALPO-18, ALPO-34, ALPO-36, ALPO-37, ALPO-46, and metal containing forms thereof, and mixtures thereof.

15. The process according to claim 1, wherein the crystalline molecular sieve is selected from the group consisting of: SAPO-34, SAPO-18, ALPO-18, and mixtures thereof.

16. The process according to claim 1, wherein the crystalline molecular sieve comprises SAPO-34.

17. The process according to claim 1, wherein the process further comprises the step of removing the nitrogen-containing organic templating agent from crystalline molecular sieve.

18. The process according to claim 1, wherein the process further comprises short periods of agitation under the substantially static conditions.

19. The process according to claim 1, wherein during the period of time after substantial completion of the crystallization step (b), and prior to the recovery step(c), the slurry is held under static conditions.

20. The process according to claim 1, wherein the reaction mixture formed in step (a) further comprises a source of MO_2, wherein M is selected from the group consisting of: Zn, Mg, Mn, Co, Ni, Ga, Fe, Ti, Zr, Ge, Sn, Cr, Cu, and mixtures thereof.

21. A catalyst comprising the crystalline molecular sieve of claim 19.

22. A method of making olefins using the catalyst of claim 21, wherein the catalyst is contacted with a feedstock comprising at least one oxygenate under conditions suitable to convert the oxygenate into olefins.

5

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